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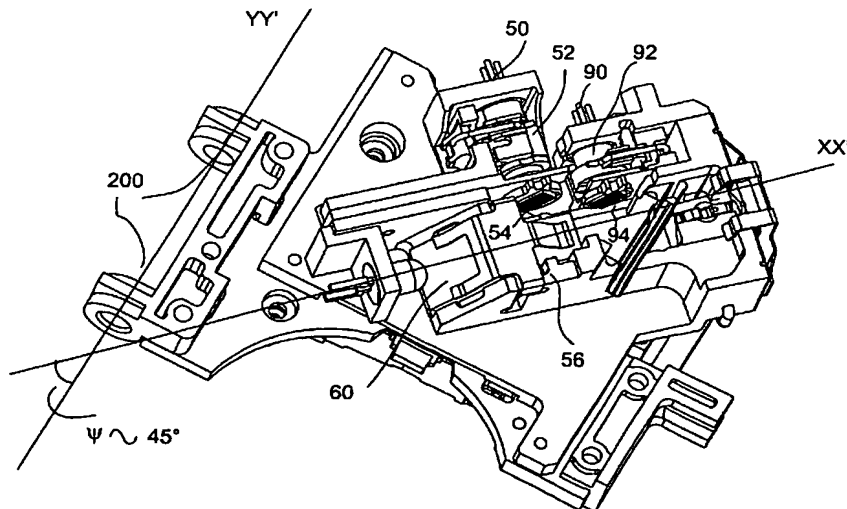
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[Continued on next page]

(54) Title: **APPARATUS HAVING AN OPTICAL HEAD FOR READING AND/OR WRITING DATA STORED IN AN OPTICAL CARRIER AND METHOD INVOLVED IN THIS APPARATUS**

(57) Abstract: This apparatus comprises an optical head (10) for reading and/or writing data stored in an optical carrier (1) having a circular shape, comprising tracks (100) wound round a center. This apparatus comprises, in particular: an optical assembly constituting said head, having a main light path direction (XX') defined by the direction of the light emitted by a first laser device and/or by reflecting mirror devices, and an exit pupil (63), including a beam shaper (52), a moving part (16) for moving said optical head in a moving direction (YY1) which is perpendicular to the tracks (100), the light path direction and the moving direction enclosing an angle (y) for achieving an adequate light intensity at the level of said exit pupil. This apparatus is well suited for reading and/or writing CDRW and DVD.



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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 163 409 A (UCHIYAMA MINEHARU ET AL) 19 December 2000 (2000-12-19) column 8, line 66 - column 10, line 16 column 17, line 34 - line 52; figures 3-5, 16	1-3, 6-9
A	-----	4, 5

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6163409	A	19-12-2000	JP	11039691 A	12-02-1999